

#fämkvirun

Zero Waste Strategy

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Waste reduction - a major challenge

Since the opening of the recycling centre in Munsbach in May 1998, the SIAS has always endeavoured to encourage residents to make the best use of their resources, to prevent them from being disposed of in

the grey bin (rubbish bin for residual waste). For the contents of the grey bin there is in fact only one last solution, namely incineration.

Development of waste volumes

Before presenting the future measures, it is interesting to analyse the data of the last years on the collection of household waste in the 4 municipalities of Contern, Niederanven, Sandweiler, Schuttrange (hereafter called SIAS municipalities). Figure 1 shows the historical development of household waste incinerated per year and per inhabitant.

It is remarkable that in recent years we have been able to reduce the amount of residual waste by an average of 25.8 kg/inhabitant to 140 kg (-16%) per inhabitant per year, which clearly shows that awareness has been raised and that the measures taken so far have had a measurable effect.

Residual waste

Waste that is produced in the household by its inhabitants in their normal daily lives and is not recycled.



However, as the population has increased by more than 14% over the same period, there has been no significant decrease in incinerated waste in absolute terms over the last decade (see Figure 1).



Img. 1 : In red the annual amount of residual waste per inhabitant, in gray the total amount of residual waste (Sources: annual reports from Syndicat 'SIDOR')

* The residual waste fraction of household waste is burned in the SIDOR incineration plant to generate electricity and thermal energy for a district heating network.



What is collected?

Today, various systems of waste collection and treatment are offered. For example, municipalities offer separate collection for:

- Biowaste
- Glass
- Paper, cardboard, cardboard
- Packaging (blue 'Valorlux' sack)
- Residual waste

At the **recycling centre** in Munsbach, more than **62,000** visitors per year currently collect more than **3,700,000** kg of valuable recyclable materials.



2,7kg

INCINERATED WASTE/
WEEK/ 



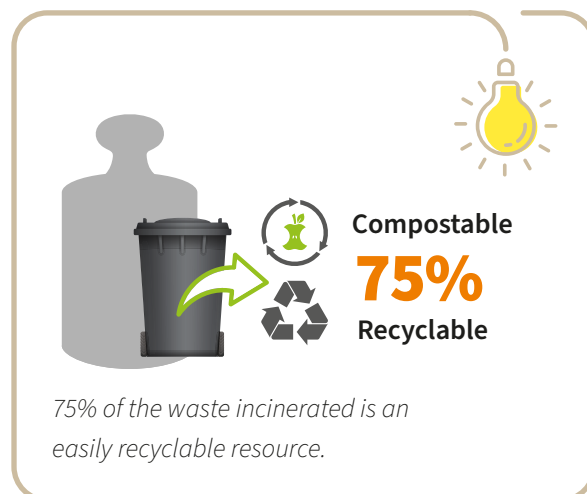
Despite this separate collection system, a large part of the valuable resources can still be found in the residual waste bin (grey bin). On average, 385 grams of waste per day are thus incinerated unnecessarily, for a total of 140 kg per inhabitant per year.

Raw materials that can be saved.

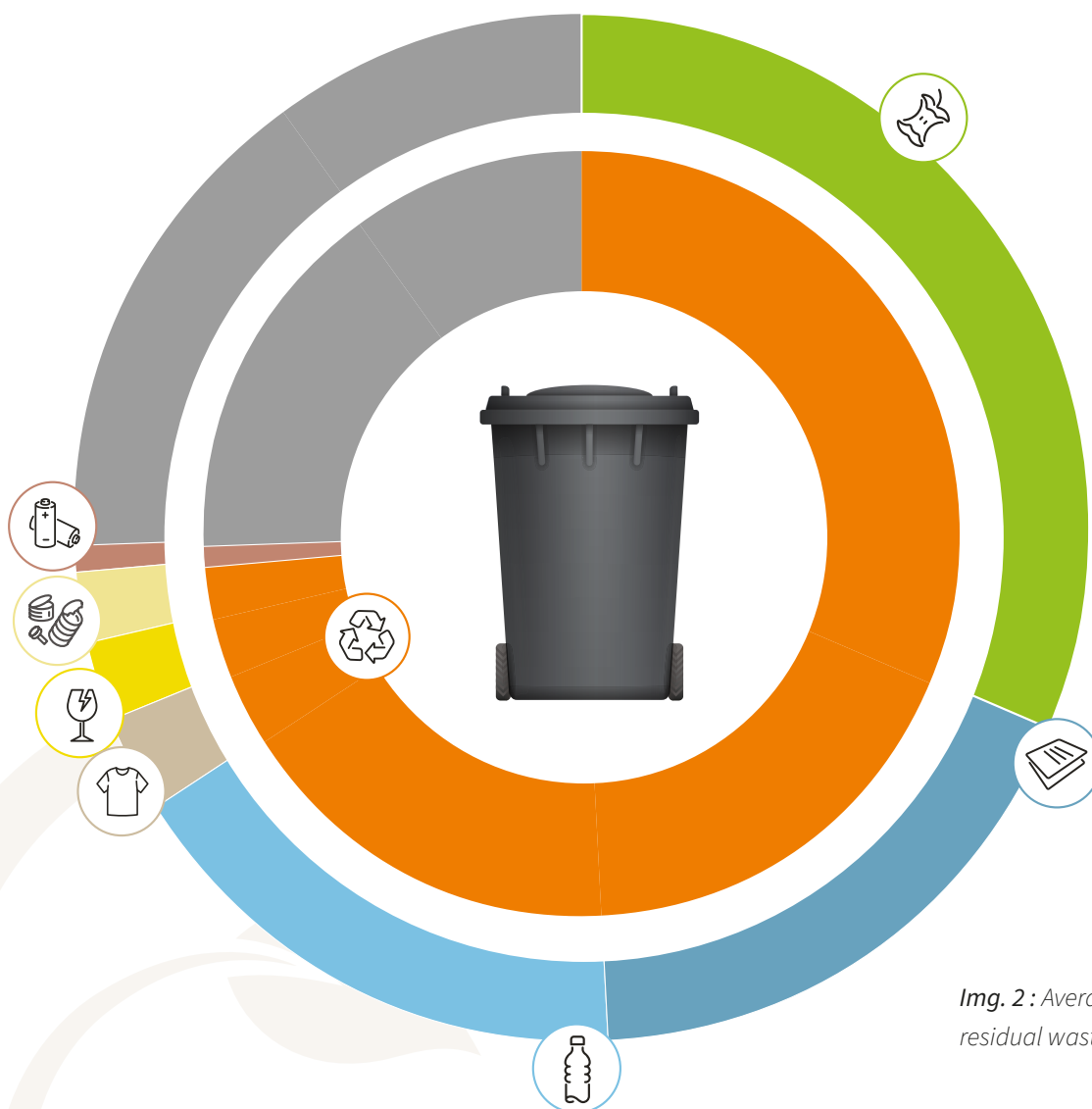
ANALYSIS ON THE RESIDENTIAL WASTE OF THE GREAT DUCHY OF LUXEMBOURG

2018/2019 The Luxembourg Government's Environment Office commissioned a national study on the composition of household waste. The study shows that it is already possible today to recover 75% of the resources from the contents of the grey bin! (Figure 2) This corresponds to more than 105 kg per inhabitant per year for the SIAS municipalities.

One important element emerges from this analysis: organic waste (green) represents the largest weight share in the grey bin. A worrying result, however, is that on average 2 kg of problematic waste (e.g. batteries, red) per person per year still ends up in our containers



every year. It is essential that we leave these problematic waste out of the grey bin and dispose of them via the "Superdreckschächt" instead.



Img. 2 : Average composition of residual waste in Luxembourg.

2021 our household waste bins will be slimmed down!



Let us pay attention to the optical illusion:

The high density of organic waste leads us to believe that we throw away less organic matter than other waste fractions. But our feeling is based on an estimate of the volume and not the actual weight!



Zero-Waste Strategy

The municipalities of Contern, Niederanven, Sandweiler and Schuttrange are aware of the environmental challenges and the local impact of our waste management on the environment and have for many years been raising the necessary funds under the SIAS to enable the separate collection of household waste, thereby ensuring the sorting, recycling, upgrading and reuse of this waste.

These funds have proven their worth, as the amount of waste incinerated per inhabitant has been reduced by 16% between 2011 and 2019.

Unfortunately, this decline remains too small due to the simultaneous population growth. After consultation with local and regional climate groups (climate teams), SIAS has decided to aim for a "zero waste" strategy for the future.

To achieve this ambitious goal, a strategy based on 5 pillars has been adopted

- 1 Raising public awareness of the "zero waste" issue
- 2 Promotion of improved sorting for the entire population
- 3 Construction of a new infrastructure for the collection and recycling of resources (project in planning)
- 4 Provision of a new collection system (already in operation for several months)
- 5 Introduction of a new catalogue of fees (from 01/01/2021)

ZERO WASTE

The best waste is the waste that does not exist!



The aim is to encourage every citizen to reduce the amount of waste they produce. To do this, it is important not only to understand the causes of waste, but also to learn how to prevent waste.

Extract from the new fee schedule

New charging schemes will apply the so-called "polluter pays" principle to waste management, whereby the person who produces the waste must pay for the treatment.

With this new calculation method, the citizen who reduces the amount of household residual waste is financially rewarded with a reduction in fees (see next section for calculation examples).

In recent weeks all 4 municipalities have introduced an identical fee system, which takes into account the specifics of each municipality in connection with the size of the proposed dustbins:

ARTICLE 1 - DEFINITION

1 The amount of the fee consists of a fixed part (basic fee) and a **variable part** depending on the volume of the container provided by the municipality (container fee) and the **weight of the container** (weight fee).

2. the basic fee is independent of the actual use of public waste management and amounts to € 36.00 per year and residential or business unit for each inhabited or otherwise used property.

The container fee is calculated on the basis of the volume capacity of the container provided by the municipality.

4. the definition of the weight charge (variable part) is based on the weight in the container recorded by a calibrated scale via the computerised identification system of the collection vehicle

THE "POLLUTER PAYS"

PRINCIPLE:

This principle dates back to 1972 and was adopted by the European Union in 1987. It is a legal principle that the costs necessary to prevent, reduce or combat pollution should be charged to the polluter.



ARTICLE 2 - BASIC FEE

1. the basic fee is independent of the actual use of the different tons and amounts to 36,00 €/year per residential or business unit, for each inhabited or otherwise used property

2. The basic fee includes the provision of a 120-litre residual waste bin and a 120-litre bio-waste bin. If the bin for organic waste is not desired, the municipality must be informed. However, the basic fee remains unchanged.

In addition, the Munsbach recycling centre will send an access card to all households (after registration with the municipality).

Craft, trade, catering, agricultural and service companies as well as associations, local authorities, public institutions and authorities can also apply for an access card to the Munsbach recycling centre. The annual fee for this is € 600.00.

ARTICLE 3 - CONTAINER FEE

The fee for the containers is calculated according to their capacity:

WASTE CONTAINER FOR	120 L	240 L	1100 L
Residual waste	<i>included *</i>	36,00 €/year	324,00 €/year
Additional residual waste bin	36,00 €/year	72,00 €/year	360,00 €/year
Organic waste	0,00 €/year	36,00 €/year	-
Additional organic waste	36,00 €/year	72,00 €/year	-
Glass	36,00 €/year	72,00 €/year	360,00 €/year
Paper/cardboard	36,00 €/year	72,00 €/year	360,00 €/year

Basic fee 36,00 €/year

ARTICLE 4 - WEIGHT CHARGE

The weight charge is calculated from the weight of the container contents. This is measured by means of the computerised identification system and a calibrated scale on the collection vehicle.

Residual waste	0,90 €/Kg
Organic waste	0,00 €/Kg
Glass	0,00 €/Kg
Paper/cardboard	0,00 €/Kg

If the scale of the collection vehicle registers an incorrect weight or no weight at all, the average weight of the last three discharges is used as the basis for the calculation. If three empties have not yet been recorded for the waste collection container mentioned above, the average weight of the three subsequent empties shall be used as the basis for the calculation. In all cases the minimum invoiced weight is 2.5 kg per emptying. If three successive empties have been recorded incorrectly, the community-specific average value shall be used for the calculation.

ARTICLE 5 - INVOICING

The rates stipulated in Articles 2 - basic fee and 3 - container fee are payable annually and entitle the holder to use the services provided throughout the year.

If the services are not provided throughout the year, the fees due are calculated according to the number of months of use, with at least one month being charged. The same applies if a container is replaced by a container with a different capacity.

A missing or damaged container will be replaced, except in the case of normal wear and tear, at the cost price of a new container at the expense of the person who ordered the container.

In principle, all fees are payable by the person who placed the order. Any order for containers, any request to change the number and/or volume of containers, any order for the removal of full containers and the return of empty containers, and any cancellation of such an order must be made in writing by the owner of the property or, in the case of co-ownership, by the trustee.

If inadmissible material is in a container, the costs for sorting and disposal of the material will be charged to the person who ordered the container at cost price.

ARTICLE 6 - OTHER FEES TO BE CHARGED

In addition, the following fees are also charged:

SPECIFIC FEES	TAX
Waste bag for mixed household waste	10,00 €/bag
Door-to-door collections	
▶ Bulky waste and metal scrap up to 1 m ³	10,00 €/disposal
for each additional m ³ (with a maximum limit of 5 m ³)	5,00 €/m ³
▶ Waste electrical and electronic equipment	20,00 €/disposal
The Minett Kompost	4,00 €/Sack
Charge for gravity bin closure (locking system):	
▶ Litter bins 120 and 240 litres	35,00 €
▶ Litter bins 1100 litres	70,00 €

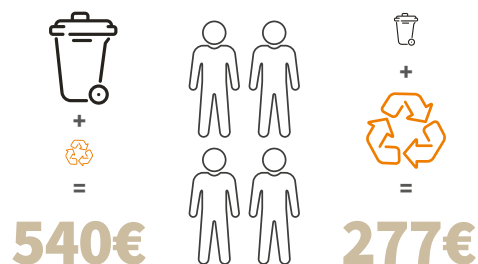
subject to Article 2, paragraph 4 - basic fee - a fee of € 25.00 shall be charged for each additional access card

Rewarding ecological behaviour



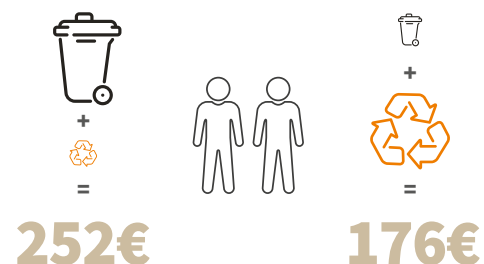
The following two examples illustrate the financial impact of reducing the amount of waste:

A. HOUSEHOLD WITH 4 PERSONS



A 55% reduction in the amount of waste will result in a saving of **313 euros**!

B. HOUSEHOLD WITH 2 PERSONS



With a 30% reduction in the amount of waste, a saving of **76 euros** is achieved!

These two examples illustrate that from 2021 there is a **real economic interest in reducing your residual waste**.

The right gestures

1| COMPOSTING/SORTING OF BIO WASTE

Because the largest part of our household waste is organic waste, it is important to sort this bio-waste effectively and throw it into the green bin. The bio-waste is composted by the municipal syndicate "Minettkompost". For those who have a garden, composting in the garden is an alternative and also creates free fertiliser and humus.

2| REFUSE

The most effective approach is to avoid waste when buying the product:

- ▶ Reject letterbox advertising
- ▶ Drink tap water
- ▶ Reject unnecessary packaging
- ▶ Reject receipts

3| REDUCE

- ▶ Make a list of meals for the week and buy only the necessary products.
- ▶ Prefer products without packaging (e.g. loose vegetables)
- ▶ Prefer larger packaging units

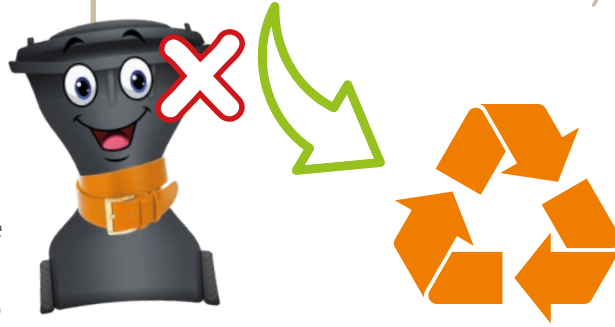
4| REUSE

- ▶ Use reusable bags
- ▶ Use reusable packaging
- ▶ Using objects a second time
 - ▷ Resale of products (e.g. on the Internet)
 - ▷ Return to shop (reusable, pay attention to return systems)

5| RECYCLING

- ▶ Separate resources
(Reduce residual waste to a minimum)

How can we tighten the belt of the grey bin?



1

Reduce non-reusable packaging and disposable products.

- ▶ When it comes to sanitary textiles (8.5% of residual waste), opt for **multiple solutions** (washable cotton/ washable make-up removal discs, durable razor blades,...)
- ▶ Buy in **larger packages**: Shampoo and solid soaps (without packaging)
- ▶ Conveying **recyclable/reusable containers**
- ▶ **Reduce the number** of cleaning products used (one product for several applications)

2



Everything that is **compostable** (so far still 30% of the weight) goes into the organic waste bin.

3

Separate recyclable materials and take them to the recycling centre



PAPER



GLASS



VALORLUX



RECYCLING CENTER



OLD CLOTHING



METAL



ELECTRICAL AND ELECTRONIC



SUPERDRECKSKESCHT

ZERO WASTE